



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,183	09/24/2003	Hans-Werner Riel	RIEL1	4032
1444	7590	05/09/2005	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			KING, BRADLEY T	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/668,183	RIEL ET AL.	
	Examiner	Art Unit	
	Bradley T King	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 17 recite "an additional automatic valve". It is not clear how the automatic valve is an "additional" automatic valve as no automatic valve has been previously recited.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8, 10 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mintgen et al (US# 5116028).

Mintgen et al discloses a gas spring including; a casing 11, which is filled with a free-flowing pressure fluid and has a central longitudinal axis; a guide and seal unit,

Art Unit: 3683

which closes a first end of the casing 11; a piston rod 17, which has an outer end and is sealingly extended through the guide and seal unit out of the first end of the casing 11; a piston 12, which is connected to the piston rod 17 and sealingly 12a guided in the casing 11; a pressure-fluid-filled first sectional casing chamber 14, which is unilaterally defined by the piston 12; an energy accumulator 16 for exercising pressure on the pressure fluid; a pressure-fluid-filled second sectional casing chamber 13, which is connectable to the first sectional casing chamber 14; and a controllable valve 31-32 for interconnection of the sectional casing chambers by an actuation/overflow assembly, the valve having a valve pin 19, which is movable from outside the casing into an open position of the controllable valve and into a shut-off position; wherein an automatic valve 26a for interconnection of the sectional casing chambers by an automatic overflow connection 23, the automatic valve comprising a valve element 26a, which is pre-loaded in a shut-off position such that, in the valve-pin shut-off position of the controllable valve, opening the automatic valve into an open position takes place only when an overcoming force F1 works between the piston rod and the casing in a piston-rod push-out direction. See column 4, lines 62-68. Mintgen et al lack the explicit disclosure of the relation of the force F1 to the spring push-out force as required by the claim. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the appropriate forces for the valving through routine design and/or experimentation to achieve the desired spring and operating characteristics of the device, thereby providing the desired spring force, behavior and proper overload protection. Also note *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Claims 1-8, 10 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1101972.

EP 1101972 discloses a gas spring including; a casing 1, which is filled with a free-flowing pressure fluid and has a central longitudinal axis; a guide and seal unit, which closes a first end of the casing 1; a piston rod 8, which has an outer end and is sealingly extended through the guide and seal unit out of the first end of the casing 1; a piston 13, which is connected to the piston rod 8 and sealingly guided in the casing 1; a pressure-fluid-filled first sectional casing chamber 4, which is unilaterally defined by the piston 13; an energy accumulator 3 for exercising pressure on the pressure fluid; a pressure-fluid-filled second sectional casing chamber 5, which is connectable to the first sectional casing chamber 4; and a controllable valve 11 for interconnection of the sectional casing chambers by an actuation/overflow assembly, the valve having a valve pin 16, which is movable from outside the casing into an open position of the controllable valve and into a shut-off position; wherein an automatic valve 18 for interconnection of the sectional casing chambers by an automatic overflow connection 19, the automatic valve comprising a valve element 21, which is pre-loaded in a shut-off position such that, in the valve-pin shut-off position of the controllable valve, opening the automatic valve into an open position takes place only when an overcoming force F_1 works between the piston rod and the casing in a piston rod push-out direction (as broadly recited). EP 1101972 lacks explicit disclosure of the relation of the force F_1 to the spring push-out force as required by the claim. It would have been obvious to one

Art Unit: 3683

of ordinary skill in the art at the time the invention was made to determine the appropriate forces for the valving through routine design and/or experimentation to achieve the desired spring and operating characteristics of the device, thereby providing the desired spring force, behavior and proper overload protection. Also note *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claims 4 and 17, the valve body is illustrated as a composite body with a non-metallic layer. Note the disclose further defines the element as a gasket, implying a soft, sealing material.

Regarding claims 5-6, EP 1101972 lacks the explicit disclosure of the materials for the composite valve. The examiner takes official notice that metal substrates and plastic or rubber materials are well known in valve design. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select a metal substrate and a plastic or rubber layer for the materials of the composite valve body of EP 1101972 as an routine part of engineering design and material selection, thereby providing appropriate valve stiffness and ensuring proper sealing of the flow passages.

Response to Arguments

Applicant's arguments filed 1/28/2005 have been fully considered but they are not persuasive. Regarding the recited force relations, it is noted that a broad range is recited and the disclosure fails to indicate any criticality of the claimed range. It is

Art Unit: 3683

further maintained that the recited forces and the effects of varying the recited forces are well known in the art, and therefore routine for one of ordinary skill in the art to determine the optimum working ranges for a desired application of the device.

Regarding EP 1101972, the reference discloses the valve element as a "gasket" and further illustrates a multiplayer construction with only one layer showing a metal cross hatch. It is maintained that the rejection is proper. Also note the rejection of claims 5-6.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

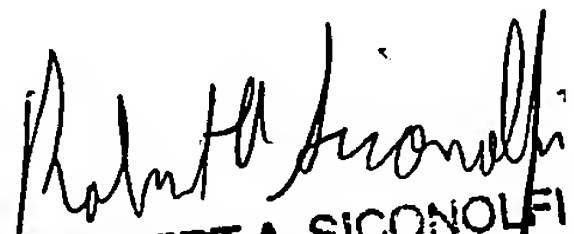
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3683

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (703) 308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTK


ROBERT A. SICONOLFI
PATENT EXAMINER
5/2/05